Remarks/Arguments:

In paragraph 1, of the Office Action, the following claims are listed as pending: 27, 29, 32 - 34, 36, 38 - 48, 52, 53, and 52 - 54.

In paragraph 2, the Examiner states "Applicant's arguments with respect to claims 27, 29, 32, 33, 41, 36, 38, 39, 40, 42, 47, 53, and 54 have been considered but are moot in view of the new ground(s) of rejection"

Examiner comment: In paragraph 3, the Examiner references 35 U.S.C.102 (e). Paragraph 4 rejects claims 27, 29, 32, 41, 36, 39, 40, 42, 47, 53 and 54 based on this reference, and cites Schlank et al. (U.S. Patent No. 6,134,017), as anticipating the disallowed claims.

Applicant's response: The claims presented above are supported by the parent application serial number 08/226,278.

The Nachman U. S. Patent No. 5,530,558 application serial number 08/226,278 filed April 11, 1994 upon which the CIP 08/669,056 depends had an effective earlier filing date than Schlank et al. (U.S. Patent No. 6,134,017) filed Nov.14, 1994, and Nehowig et. al. filed March 19, 1996 (U.S. Patent No. 5,823,689). Said patent application, serial number 08/226,278, included; isolation from the public telephone line when in the scanning or printing mode, conditioning the computer and the facsimile machine to send or receive digital image data signals for scanning or printing, sending or receiving digital image data signals between a facsimile machine and a computer, and the processing of said digital image data signals received by the computer or facsimile machine.

The inherent features of the Nachman 5,530,558 Patent application, serial number 08/226,278 specification, in Figures 2b, 2c and 2d showed a bi-directional direct connection through a passive link between a computer and a facsimile machine.

Inherently the image information signals transferred across the passive link for both scanning and printing are digital image data signals.

Before image data can be transmitted or received by a Group III facsimile machine it must be converted to a digital signal. Development of said signals by the facsimile machine are typically as outlined in the following steps:

1. Place paper with text or graphic image in facsimile machine

2. Print is read using CCD with analog output

3. Output is sent to an A/D with digital output

4. Digital output is stored in a parallel buffer

5. Buffer output is sent in parallel to a UART

6. UART data in digital serial format containing the text or graphic image information is then sent to a modem, where modulation merges the digital serial data with an analog tone data carrier wave.

7. The following represents the above sequence of signal flow from the facsimile machine ⇒ CCD analog ⇒ A/D ⇒ digital ⇒ Buffer ⇒ digital parallel ⇒ UART ⇒ digital serial ⇒ Modem ⇒ analog signal ⇒ Out

8. Inherently all of the above signals are subsets of the final analog carrier wave signal out.

9. The data is transmitted to the computer modem via the bi-directional direct connection through the passive link where it is demodulated, and the digital serial data is received by the computer UART, and used as needed in the computer, i.e. OCR, editing, storage, email or for future fax transmissions and printouts.

Therefore, as specified above and shown in Step 7 it is apparent that Nachman preceded both Schlank et al. and Nehowig et al. with respect to transferring image digital data signals between a facsimile machine and a computer.

The following inherently describes how a typical Group III facsimile machine referenced in Column 5, lines 18–20, of the parent application, serial number 08/226,278, filed April 11, 1994, develops, transfers and receives signals for scanning and printing.

(A)-Scanning from the Facsimile Machine to the Computer

A fax machine generates fax image data through a scanning process. The fax image data is generated by a CCD in the fax machine, transferred to an A/D electronic circuit, and subsequently temporarily stored in a buffer in a parallel data format. Then, an electronic device called a UART (or sometimes a USART) receives the parallel data and reformats the data into digital serial data, the digital serial data is forwarded to another electronic circuit in the fax machine referred to as a modem. The modem is designed to take digital serial image data and impose this data onto a "carrier wave," this process is referred to as "modulation." The carrier wave is an analog signal and does not change the format or image content of the digital serial data that is in effect "riding" on top of the carrier wave. As the computer receives this transmission, the combination digital serial data + carrier wave signal is received by a modem device in the computer. The computers modem strips the carrier wave from the received signal, referred to as "demodulation," and forwards the digital serial data signal to a UART/USART within the computer. The UART/USART reformats the digital serial data into a parallel format for use as needed by the computer.

(B)- Printing from the Computer to the Facsimile Machine

A computer printing process starts with parallel data (a computer's natural data format),

and the computer sends this parallel data or reformatted serial data to a printing device via a communications port on the computer.

In the computer mode for printing, the computer transfers the parallel data to an electronic device called a UART (or sometimes a USART), which reformats the data into digital serial data.

The digital serial data signal is forwarded to another electronic circuit in the computer referred to as a modem. The modem is designed to take digital serial data and impose this data onto a "carrier wave," this process is referred to as "modulation." The carrier wave is an analog signal and does not change the format or image content of the digital serial data that is in effect "riding" on top of the carrier wave. The combination digital serial data + carrier wave signal is received by a modem device in the fax machine. The fax machine's modem strips the carrier wave from the received signal, referred to as "demodulation," and forwards the digital serial data signal to a UART/USART within the fax machine. The UART/USART reformats the digital serial data into a parallel format for transfer and print processing within the fax machine.

Applicants comment:

The following quote is taken from Canon Corporation's "Facsimile Theory" document, "One of the features that separate the G III fax units from G II or G I is that between the a/d conversion and the modulation process is the coding process. Coding of the data prior to modulation is why G III fax machines are considered digital transmission". This is true even when an analog carrier is used, because the digital serial data is compressed and superimposed on the carrier, which is reformatted to accommodate the digitized information.

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Several different digital compression techniques are noted for serial fax machines for faster transmission of **digital image data over phone lines**, such as the Modified Huffman Scheme, Modified Read Scheme or Trellis Coding Scheme. The Canon Corporation's "Facsimile Theory" document is incorporated by reference herein.

References to Industry Standardization of G III Facsimile Machine Functionality.

Group III facsimile machines comply with "The International Telecommunication Union, ITU-T, T.30, Telecommunication Standardization Sector of ITU, Series T: Terminal Equipments and Protocols for Telematic Services, Procedures for document facsimile transmission in the general switched telephone network. ITU-T Recommendation T.30" (Previously "CCITT Recommendation"). This recommendation was approved by the World Telecommunication Standardization Conference (WTSC) (Helsinki, March 1-12, 1993). During 1993-1996, several amendments were approved. The publication of ITU-T Recommendation T.30 (1996) is based on the following materials: T.30 (1993), T.30/Amd.1 (1994), T.30/Amd.2 (1995) and T.30/Amd.3 (1996). The documents are incorporated by reference, and hereafter are referred to as ITU.

The following information is applicable to the usage of "digital connector ports" as used in claims 36, 38, 39, 40, and 54, and ISDN as applicable to digital transmission networks and connectivity.

It is inherent that the use of G III facsimile machines, as described in application, serial number 08/226,278 filed April 11, 1994 incorporates the ITU standards and protocol usage of said G III facsimile machines. The ITU standard under Annex C is titled "Procedure for Group III document facsimile transmission on the Integrated Services Digital Network (ISDN) or on the General Switched Telephone Network (GSTN) using duplex modulation systems". This document and others referenced therein, define the

protocol for using G III facsimile machines on ISDN, and optionally on other digital networks, incorporating the use of "end to end digital transmission", or digital data transfer, using analog telephone lines. Said digital transmission connectivity includes RS 232, IEEE1284, and other types of digital transmission connectivity and associated "digital connector ports."

The CIP parent application, serial number 08/226,278 filed April 11, 1994, showed the application of scanning and printing by use of a "bi-directional direct connection via a passive link, between a G III facsimile machine and a computer", in Figures 2b, 2c, and 2d, of the specification. Thereafter, it would have been obvious and common knowledge to one skilled in the art with an understanding of the ITU standard, and as shown in the 08/226,278 parent application in Figure 2e, to use other "digital connector ports", and interfaces such as, RS 232, or IEEE1284, between a G III facsimile machine and a computer.

Neither Schankel et al., nor Nehowig et al. preceded the above disclosure and they therefore, should not be considered as a bar to the use of "digital connector ports", and RS 232 or IEEE 1284 digital transmission connectivity.

Applicant's Comment: Regarding claims 27, 29, 32 - 34, 36, 38 - 48, and 52 - 54, all of the referenced claims were supported by the parent application 08/226,278, filed April 11, 1994, upon which the CIP 08/669,056 depends, which as noted herein preceded both Schlank et al. and Nehowig et al., upon which the Examiner has relied. Therefore, we believe the information provided herein shows that the cited patents do not apply as a rejection to the listed claims.

With respect to the Examiner's comments to the claims, the Applicant's response follows.

Applicant's response:

The inherent features, the specification content and the established precedence of the parent application 08/226,278, filed April 11, 1994, upon which the CIP 08/669/056 depends, support all of the claims as stated herein.

It is noted the Examiner has allowed claims 34, 43 – 46, 48 and 52

in paragraphs 7and 8 of the Office Action.

Claim 27- Arguments as noted herein shall apply.

Claim 29- Arguments as stated herein shall apply. The parent application 08/226,278, in Figures 2a-2e inherently show isolation from the public telephone, by providing a direct connection from the facsimile machine to the computer for scanning and printing, which is further described in Column 4, lines 25-65 and Column 5, lines 40-63, upon which the CIP depends.

Claim 32- Arguments as stated herein shall apply, with respect to the inherent usage of parallel data source signals in G III facsimile machines, and as noted in signal generation as described herein.

Claim 33- Arguments as stated herein shall apply with particular note to the inherent usage of digital data source signals in G III facsimile machines, and signal generation as described herein.

It is believed, that both Schlank et al. and Nehowig et al. are overcome by precedence as stated herein, and therefore reference to 35 U.S.C. 103(a) in paragraphs 5 and 6 of the Office Action does not apply.

Claim 36- Arguments as stated herein shall apply.

Claim 38- Arguments as stated herein and the response in Claim 33 shall apply.

Claim 39- Arguments as stated herein shall apply.

Claim 40- Arguments as stated herein shall apply.

Claim 41- Arguments as stated herein shall apply, with respect to the prior references to the use of OCR in application serial number 08/226,278, Column 5, lines 24 – 30, upon which the CIP depends.

Claim 42- Arguments as stated herein, and the response in Claim 41 shall apply.

Claim 47- Arguments as stated herein shall apply.

Claim 53- Arguments as stated herein shall apply.

Claim 54- Arguments as stated herein shall apply.

Applicant believes that claims 27, 29, 32 - 34, 36, 38 - 48, 52 - 54 are now in condition for allowance.

Allowance of this application is respectfully requested, in view of the foregoing.

If, however, the Examiner is of the opinion that such favorable action cannot be taken, it is requested that she telephone the undersigned Applicant in order that any outstanding issue may be resolved without the necessity of a further office action.

Respectfully submitted,

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